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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,169	09/15/2008	Shinya Nagata	5553NA4-1	5276
62574	7590	03/07/2012	EXAMINER	
Jason H. Vick Sheridan Ross, PC Suite # 1200 1560 Broadway Denver, CO 80202			BEHRINGER, LUTHER G	
			ART UNIT	PAPER NUMBER
			3766	
			NOTIFICATION DATE	DELIVERY MODE
			03/07/2012	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jvick@sheridanross.com

Office Action Summary	Application No. 10/599,169	Applicant(s) NAGATA ET AL.	
	Examiner LUTHER BEHRINGER	Art Unit 3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2012.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 22-42 is/are pending in the application.
- 5a) Of the above claim(s) 28-42 is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 22-27 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 10 January 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: ____. |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :01/10/2007
09/29/2009 01/07/2010 06/09/2011.

DETAILED ACTION

1. This office action is in response to the communication received on 01/18/2012 concerning application no. 10/599,169 filed on 09/15/2008.

Election/Restrictions

2. Applicant's election without traverse of the invention of group I and the further election of the electrocardiogram analysis species in the reply filed on 01/18/2012 is acknowledged.

Claim Objections

3. Claim(s) 22 – 27 are objected to because of the following informalities: In claim 22, the following phrase appears incorrect: "position having a boarder with near presternal region."

4. In claim 23, it appears that applicant intended to use the word "garment" instead of "germane" in the last line of the claim.

5. Claims 24 and 27 lack articles in many instances (e.g. "a", "the") which could potentially lead to a antecedent basis rejection.

6. In claim 25, the following phrase appears incorrect: "cover one of the body surface of near color bones." It appears that applicant intended to claim a "collar" bone.

7. In claim 26, the following phrase appears incorrect: "at least one chest electrode one of at a position."

Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim 23 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. The term "vicinity" in claims 23 and 24 is a relative term which renders the claim indefinite. The term "vicinity" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The use of the term "vicinity" in reference to the length of the lead electrode disposition does not clearly indicate the limits of the distance claimed.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claim(s) 22 – 26 are rejected under 35 U.S.C. 102(b) as being anticipated by **Mills (US 4,608,987)**.

With regard to **claim(s) 22 and 24**, Mills discloses a garment, **10**, for measuring biological information formed of a nonconductive material having elasticity so as to fit on the upper body of an examinee, the garment being characterized in comprising chest lead electrodes, **V1 – V6**, formed of a conductive material, *stainless steel*, capable of acquiring a heart potential at vicinity of chest part under a condition of less myoelectric influence regardless of individual difference of the heart position by forming the chest lead electrodes which cover from the body surface around the fourth rib to the body surface around the sixth rib when the examinee wears the garment and capable of delivering the potential to a cardiogram analysis device, the chest lead electrodes being arranged on the garment at least six positions from a position having a boarder with near presternal region of the examinee to vicinity of left chest lateral part (Fig. 1; Col. 6, ll. 13 – 23).

Regarding **claim 23**, Mills discloses all of the limitations of claim 22 above and further discloses the chest lead electrodes having a length of more than 5 cm and less than 30 cm in a direction of the total length from vicinity of front center of the garment to vicinity of left side of the garment (Fig. 1; Col. 3, l. 67 – Col. 4, l. 8). The examiner is interpreting the lateral distance between V1 and V6 to be in the vicinity of 5 – 30 cm.

With regard to **claim 25**, Mills discloses wherein the garment is a shirt worn on the upper body of the examinee, the shirt further comprising four limb electrodes, **RA, LA, RL & LL**, having dimensions so as to at least cover one of the body surface of near collar bones of the examinee and the body surface of near pelvis of the examinee and

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capable of acquiring an electric potential and capable of delivering the potential to the cardiogram analysis device (Fig. 1).

Regarding **claim 26**, Mills discloses wherein the garment further comprises at least one chest electrode one of at a position from around presternal region of the examinee to a position near a side of right chest, **RA**, and a position from near a side of left chest, **LA**, to a position near the back, **RL**, in addition to the chest lead electrodes (Fig. 1).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

15. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

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were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

16. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Mills (US 4,608,987)** in view of **Sackner et al. (US 2003/0135127, herein Sackner)**.

With regard to **claim 27**, Mills fails to disclose a cardiogram analysis device, wherein the cardiogram analysis device comprises: electric potential information acquisition means for acquiring information on electric potentials based on electric potentials delivered from a plurality of chest lead electrodes; electric potential comparison means for comparing amplitudes of the acquired electric potential information; electric potential selection means for selecting the chest lead electrodes detecting a larger amplitude as electric potential information to be based on an output of cardiogram in accordance with the comparison result of the electric potential comparison means; and cardiogram analysis output means for outputting cardiogram data after analysis of the electric potential information detected by the selected chest lead electrodes.

However, Sackner teaches a cardiogram analysis device, wherein the cardiogram analysis device, **3 or 33**, comprises: electric potential information acquisition means, *microprocessor*, for acquiring information on electric potentials based on electric potentials delivered from a plurality of chest lead electrodes; electric potential

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comparison means, *microprocessor*, for comparing amplitudes of the acquired electric potential information; electric potential selection means, *comparing monitored signals to default values*, for selecting the chest lead electrodes detecting a larger amplitude as electric potential information to be based on an output of cardiogram in accordance with the comparison result of the electric potential comparison means; and cardiogram analysis output means, *XMTR*, for outputting cardiogram data after analysis of the electric potential information detected by the selected chest lead electrodes (Abstract; Figs. 1, 3 – 5 & 8A; [0103]).

17. Since the marketplace reflects the reality that applying modern, more compact electronics to older electronic devices is commonplace, it would have been obvious to one of ordinary skill in the art of electrical medicinal therapy at the time of the invention to update the device of Mills with the modern electronics that are commonly available and understood in the art as shown in Sackner in order to gain the commonly understood benefits of such adaptation, such as increased reliability, reduced size, simplified operation and reduced cost.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See form PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUTHER BEHRINGER whose telephone number is

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(571)270-3868. The examiner can normally be reached on Mon - Thurs 9:00 - 6:30;
2nd Friday 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Layno can be reached on (571) 272-4949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CARL H LAYNO/
Supervisory Patent Examiner, Art Unit 3766

/Luther G Behringer/
Examiner, Art Unit 3766